REMARKS

I. Summary of the Examiner's Action

A. Claim Rejections

As set forth in paragraph 2 on page 2 of the February 4 Office Action, claims 1 – 35 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

As set forth in paragraph 4 on page 3 of the February 4 Office Action, claims 1, 8 – 10, 16 – 18, 25 – 29 and 32 – 33 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,549,587 B1 to Li (hereinafter "Li" or the "Li patent").

As set forth in paragraph 10 on page 12 of the June 15 Office Action, claims 3 – 7, 11 – 15, 19 – 24, 30 – 31 and 34 – 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Li as applied to claims 1 and 9 and further in view of in view of United States Patent Application Publication No. 2002/0067744 A1 to Fuji *et al.* (hereinafter "Fuji" or the "Fuji application").

These rejections are respectfully disagreed with and traversed below.

II. Applicant's Response

A. Rejection of Claims 1 – 25 under 35 U.S.C. § 112, Second Paragraph

Applicant has amended claim 9 by deleting the second "comprising", thereby mooting the rejection of the claim on this basis.

Applicants dispute the phrase "substantially continuous" renders claim 9 indefinite. Words of degree in claims (for example, relative terminology such as "substantially equal to") are not indefinite if the specification provides a standard for measuring that degree. Seattle Box Co., Inc. v. Indiustrial Crating & Packing Inc. 731 F.2d 818, 221 USPQ 568, 574 (Fed. Cir. 1984). See also MPEP 2173.05(b). Applicants respectfully submit that a person skilled in the art would understand in light of the specification what "substantially continuous" means. In particular, an object of the invention is to render discontinuities imperceptible as described at page 24, lines 19 – 27:

> "Assuming the use of an audio source with a steady play-out rate, and if Voice Packets are received at a terminal at a constantly slower rate than the packets are created, then by the use of this invention the speed of the output voice should be slower than the original. Assuming instead the use of an audio source in which random output interruptions are generated, and Voice Packets between interruptions are received at the terminal at a higher rate than the rate at which the Voice Packets are created such that the long-term average of the arrival interval is approximately that of the packet creation interval, <u>the use of this invention results in substantially imperceptible fluctuations in the speed of the output voice."</u>

In view of this, one skilled in the art would understand the metes and bounds of "substantially continuous".

Applicants remind the Examiner that MPEP 2173.02 requires that if the disclosure and claims are sufficient for one skilled in the art to understand, an examiner "should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirements." Applicants note that the Examiner has not presented any reasons why one skilled in the art would not understand the phrase "substantially continuous". Similar arguments apply to claims using "substantially synchronous" and "substantially asynchronous." Accordingly, Applicants request that the Examiner withdraw the rejection of claims 1, 2, 9 – 10, 17 – 18, 28 and 32 - 33 on this basis, as well as the claims depending from these claims.

B. <u>Rejection of Claims 1, 8 – 10, 16 – 18, 25 – 29 and 32 – 33 under 35 U.S.C. § 102(e)</u>

Applicant reproduces claim 9 here as a convenience to the Examiner (emphasis added):

9. A Voice over IP capable device that is coupled to a packet network, comprising:

a receiver for receiving and buffering data packets that comprise voice information;

a decoder for decoding the voice information to obtain voice samples;

a buffer for buffering the decoded voice samples prior to generating a voice play-out signal; and,

a time scaling function interposed between said decoder and said buffer for time scaling decoded voice samples as a function of packet network conditions to adjust a Buffering Delay to enable changing the voice play-out rate to provide a substantially continuous output voice signal when the data packets are received at a rate that differs from a rate at which the data packets are created.

Applicant respectfully submits that it is not seen where the emphasized subject matter of claim 9 is either described or suggested by the relied-upon references.

Regarding Li, Applicant respectfully submits that claim 9 is both novel and non-obvious. It simply is not seen where in the relied upon portions of Li the subject matter of claim 9 is either described or suggested. In particular, time scaling is described at page 7, lines 5 – 11 of the application where it is stated:

> "Time scaling is an operation that removes or copies input samples, according to a desired scaling ratio, so that a ratio between the number of input and output samples corresponds to the desired scaling ratio. When performed for voice samples the strong periodicity of voice is considered such that the spectral information does not radically change. Time scaling can be achieved when one or more multiple periods are either copied or removed. Also, time scaling can be considered as adding or removing silence intervals during voice."

The operation of an exemplary embodiment of the scaling function is described as follows at page 10, line 15 – page 11, line 3:

"As was also noted above, for the synchronous component 10B the estimates are used in control of the Buffering Delay in Block 18 so that Buffering Delay is maintained at a large enough value to accommodate the variations in packet arrivals. The control Block 18 provides an output 18A for indicating a number of decodings to a Decoding Block 20, and a scaling ratio output 18B (the ratio between the scaled and the original signal lengths) to a Time Scaling Block 22. For example, if the allowed ratios are between 0.5 and 2.0, then the number of decodings can be 0, 1 or 2 times during a single 20 ms interval. Once the samples are time scaled they are placed in a scaling buffer 24. The fullness of the scaling buffer 24 varies depending on the Scaling Ratio being used, and therefore the current size (corresponding to the number of current entries) of the scaling buffer 24 (indicated by output 24A) is used by the control Block 18 for ensuring that there will be at least 160 samples every 20 ms supplied to the audio buffer 26, but also that the scaling buffer 24 will not overflow. In this case 160 samples correspond to a 20 ms frame duration when the voice signal is sampled at 8,000Hz (i.e., 8,000Hz*0.02s = 160). At every 20 ms interval 160 of the samples of the voice signal are transferred to the audio buffer 26 for further processing. The entire adaptive process is thus transparent for any audio processing that takes place after it."

Li does not show any appreciation for such modes of operation. If there is any lingering doubt, Applicant reproduces a relied-upon portion of Li appearing at column 29, lines 47 – 65 here:

"In an exemplary embodiment, the voice synchronizer analyzes the contents of the voice queue and determines when to release voice frames to the voice decoder, when to play comfort noise, when to perform frame repeats (to cope with lost voice packets or to extend the depth of the voice

queue), and when to perform frame deletes (in order to decrease the size of the voice queue). The voice synchronizer manages the asynchronous arrival of voice packets. For those embodiments which are not memory limited, a voice queue with sufficient fixed memory to store the largest possible delay variation is used to process voice packets which arrive asynchronously. Such an embodiment includes sequence numbers to identify the relative timings of the voice packets. The voice synchronizer should ensure that the voice frames from the voice queue can be reconstructed into high quality voice, while minimizing the end-to-end delay. These are competing objectives so the voice synchronizer should be configured to provide system trade-off between voice quality and delay."

Applicant respectfully submits that "a time scaling function" as described and claimed is simply neither described nor suggested in this or any other portion of Li. If the Examiner disagrees, Applicant respectfully requests that the Examiner explain with particularity exactly where the time scaling function is either described or suggested in Li, without relying on extensive citations that are mainly background material.

Accordingly, Applicant submits that independent claim 9 is patentable over the over the art of record, whether taken singly or in combination. Applicant therefore respectfully requests that the rejection of claim 9 be withdrawn. Applicant also submits that independent claims 1, 17, 28 and 32 are patentable for reasons similar to those set forth above with respect to claim 9 and for reasons having to do with their independently-recited features. As a result, Applicant respectfully requests that the rejection of independent claims 1, 17, 28 and 32 be withdrawn as well. Applicant also requests that the rejection of dependent claims 8 – 10, 16, 18, 25 – 27, 29 and 32 be withdrawn, both

since these claims depend, either directly or indirectly, from an allowable base claim, and for reasons having to do with their independently-recited features.

C. Rejection of Claims 3 – 7, 11 – 15 19 – 24, 30 – 31 and 34 - 35under 35 U.S.C. § 103(a)

Applicant respectfully submits that the Fuji application is not seen to remedy the foregoing deficiencies of Li. Accordingly, Applicant respectfully requests that the rejection of claims 3 – 7, 11 – 15, 19 – 24, 30 – 31, and 34 – 35 be withdrawn.

IV. Conclusion

Applicant submits that in light of the foregoing amendments and remarks the application is now in condition for allowance. Applicant therefore respectfully requests that the outstanding rejections be withdrawn and that the case be passed to issuance.

Respectfully submitted,

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Date

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